

KENWOOD

STEREO CASSETTE TAPE DECK

KX-W1060 KX-W594

INSTRUCTION MANUAL

KENWOOD CORPORATION

This manual contains instructions for two models.

Introduction

Your choice of this product indicates that you are a devotee to excellence in sound reproduction.

We appreciate your patronage and take pride in the long tradition of quality components that our company represents.

So that you can get the most out of your unit, we suggest that you take the time to read through this manual before you hook up and operate your system. This will acquaint you with operating features and system-connection considerations so that your listening pleasure will be enhanced right from the start. You will notice that in all aspects of planning, engineering, styling, operating convenience and adaptability we have sought to anticipate your needs and desires.

Keep this manual handy for future reference.

For your records

Record the serial number, found on the back of the unit, in the spaces designated on the warranty card, and in the space provided below. Refer to the model and serial numbers whenever you call upon your dealer for information or service on this product.

Model _____ Serial Number _____

Unpacking

Unpack the unit carefully and make sure that all accessories are put aside so they will not be lost.

Examine the unit for any possibility of shipping damage. If your unit is damaged or fails to operate, notify your dealer immediately. If your unit was shipped to you directly, notify the shipping company without delay. Only the consignee (the person or company receiving the unit) can file a claim against the carrier for shipping damage.

We recommend that you retain the original carton and packing materials for use should you transport or ship the unit in the future.

WARNING NOTICE:

IN MOST CASES IT IS AN INFRINGEMENT OF COPYRIGHT TO MAKE COPIES OF TAPES OR DISCS WITHOUT THE PERMISSION OF THE COPYRIGHT OWNERS. ANYONE WISHING TO COPY COMMERCIALY AVAILABLE TAPES OR DISCS SHOULD CONTACT THE MECHANICAL COPYRIGHT PROTECTION SOCIETY LIMITED OR THE PERFORMING RIGHTS SOCIETY LIMITED.

* Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation.
"DOLBY" and the double-D symbol  are trademarks of Dolby Laboratories Licensing Corporation.




Accessories

Audio cord 2




Contents

Caution : Read the pages marked  carefully to ensure safe operation.

Introduction	2	Controls and indicators	8
 Before applying power	3	Listening to cassette tapes	9
 Safety precautions	3	How to record (deck B only)	11
 IMPORTANT SAFEGUARDS	4	Tape dubbing operation	12
Before operation	6	In case of difficulty	13
System connection	7	Specifications	15

Before applying power

 **Caution : Read this page carefully to ensure safe operation.**

For the U.S.A., Mexico and Canada

Important!

Units shipped to the U.S.A., Mexico and Canada are designed for operation on **120** volts AC only.

For Australia and Europe

Important!

Units shipped to Australia are designed for operation on **240** Volts AC only.
Units shipped to Europe are designed for operation on **230** Volts AC only.

For the United Kingdom

Important!

Units shipped to the U.K. are designed for operation on **240** volts AC only.

Factory fitted moulded mains plug

1. The mains plug contains a fuse. For replacement, use only a 3-Amp ASTA-approved (BS1362) fuse.
2. The fuse cover must be refitted when replacing the fuse in the moulded plug.
3. Do not cut off the mains plug from this equipment. If the plug fitted is not suitable for the power points in your home or the cable is too short to reach a power point, then obtain an appropriate safety approved extension lead or adapter, or consult your dealer.
If nonetheless the mains plug is cut off, remove the fuse and dispose of the plug immediately, to avoid a possible shock hazard by inadvertent connection to the mains supply.

For other countries

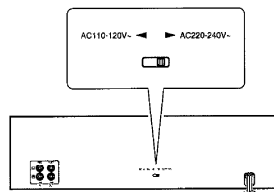
Important!

Units shipped to countries other than the above countries are equipped with an AC voltage selector switch on the rear panel. Refer to the following paragraph for the proper setting of this switch.

AC voltage selection

This unit operates on **110 - 120** volts or **220 - 240** volts AC. The AC voltage selector switch on the rear panel is set to the voltage that prevails in the area to which the unit is shipped. Before connecting the power cord to your AC outlet, make sure that the setting position of this switch matches your line voltage. If not, it must be set to your voltage in accordance with the following direction.

AC voltage selector switch







Move switch lever to match your line voltage with a small screwdriver or other pointed tool.

Note:
Our warranty does not cover damage caused by excessive line voltage due to improper setting of the AC voltage selector switch.

Safety precautions

WARNING: TO PREVENT FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

 <div>CAUTION RISK OF ELECTRIC SHOCK DO NOT OPEN</div> 	CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.
	THE LIGHTNING FLASH WITH ARROWHEAD SYMBOL, WITHIN AN EQUILATERAL TRIANGLE, IS INTENDED TO ALERT THE USER TO THE PRESENCE OF UNINSULATED "DANGEROUS VOLTAGE" WITHIN THE PRODUCT'S ENCLOSURE THAT MAY BE OF SUFFICIENT MAGNITUDE TO CONSTITUTE A RISK OF ELECTRIC SHOCK TO PERSONS.
	THE EXCLAMATION POINT WITHIN AN EQUILATERAL TRIANGLE IS INTENDED TO ALERT THE USER TO THE PRESENCE OF IMPORTANT OPERATING AND MAINTENANCE (SERVICING) INSTRUCTIONS IN THE LITERATURE ACCOMPANYING THE APPLIANCE.

IMPORTANT SAFEGUARDS

 **Caution : Read this page carefully to ensure safe operation.**

Please read all of the safety and operating instructions before operating this appliance. Adhere to all warnings on the appliance and in the instruction manual. Follow all the safety and operating instructions. These safety and operating instructions should be retained for future reference.

1. Power sources – The appliance should be connected to a power supply only of the type described in the instruction manual or as marked on the appliance. If you are not sure of the type of power supply to your home, consult your appliance dealer or local power company. For appliances intended to operate from battery power, or other sources, refer to the instruction manual.

2. Power-cord protection – Power-supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at plugs, convenience receptacles, and the point where they exit from the appliance.

Never pull or stretch the cord.

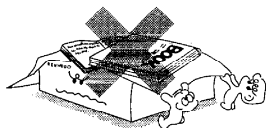


3. CAUTION– Polarization – This appliance may be equipped with a polarized alternating-current line plug (a plug having one blade wider than the other). This plug will fit into the power outlet only one way. This is a safety feature. If you are unable to insert the plug fully into the outlet, try reversing the plug. If the plug should still fail to fit, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the polarized plug.

4. Ventilation – Slots and openings in the cabinet are provided for ventilation and to ensure reliable operation of the appliance and to protect it from overheating, and these openings must not be blocked or covered. The appliance should be situated so that its location or position does not interfere with its proper ventilation.

To maintain good ventilation, do not put records or a tablecloth on the appliance. Place the appliance at least 10 cm away from the walls.

Do not use the appliance on a bed, sofa, rug or similar surface that may block the ventilation openings. This appliance should not be placed in a built-in installation such as a bookcase or rack unless proper ventilation is provided or the manufacturer's instructions have been adhered to.

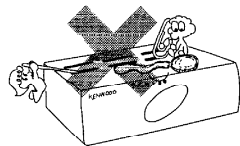


5. Water and moisture – The appliance should not be used near water - for example, near a bathtub, washbowl, kitchen sink, laundry tub, in a wet basement, or near a swimming pool, etc.

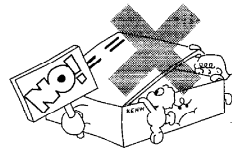
6. Temperature – The appliance may not function properly if used at extremely low, or freezing temperatures. The ideal ambient temperature is above +5°C (41°F).

7. Heat – The appliance should be situated away from heat sources such as radiators, heat registers, stoves, or other appliances (including amplifiers) that produce heat.

8. Electric shock – Care should be taken so that objects do not fall and liquid is not spilled into the enclosure through openings. If a metal objects, such as a hair pin or a needle, comes into contact with the inside of this appliance, a dangerous electric shock may result. For families with children, never permit children to put anything, especially metal, inside this appliance.



9. Enclosure removal – Never remove the enclosure. If the internal parts are touched accidentally, a serious electric shock might occur.



10. Magnetic fields – Keep the appliance away from sources of magnetic fields such as TV sets, speaker systems, radios, motorized toys or magnetized objects.

11. Cleaning – Unplug this appliance from the wall outlet before cleaning. Do not use volatile solvents such as alcohol, paint thinner, gasoline, or benzine, etc. to clean the cabinet. Use a clean dry cloth.

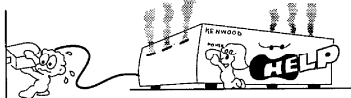
12. Accessories – Do not place this appliance on an unstable cart, stand, tripod, bracket, or table. The appliance may fall, causing serious injury to a child or adult, and serious damage to the appliance. Use only with a cart, stand, tripod, bracket, or table recommended by the manufacturer, or sold with the appliance. Any mounting of the appliance should follow the manufacturer's instructions, and should use a mounting accessory recommended by the manufacturer. An appliance and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the appliance and cart combination to overturn.



13. Lightning – For added protection for this appliance during a lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet and disconnect the antenna or cable system. This will prevent damage to the appliance due to lightning and power-line surges.

14. Abnormal smell – If an abnormal smell or smoke is detected, immediately turn the power OFF and unplug the appliance from the wall outlet. Contact your dealer or nearest service center.

POWER OFF!

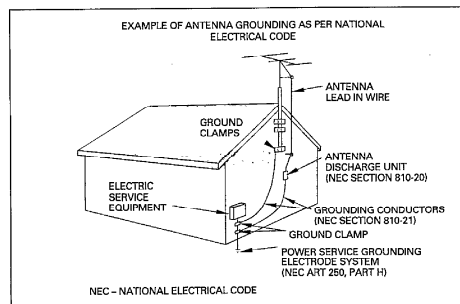


15. Damage requiring service – The appliance should be serviced by qualified service personnel when:

- A.** The power-supply cord or the plug has been damaged.
- B.** Objects have fallen, or liquid has been spilled into the appliance.
- C.** The appliance has been exposed to rain or water.
- D.** The appliance does not appear to operate normally by following the instruction manual. Adjust only those controls that are covered by the instruction manual as an improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the appliance to its normal operation.
- E.** The appliance has been dropped, or the enclosure damaged.
- F.** The appliance exhibits a marked change in performance.

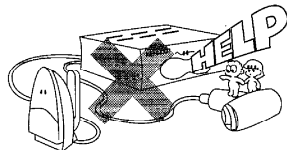
16. Servicing – The user should not attempt to service the appliance beyond that described in the instruction manual. All other servicing should be referred to qualified service personnel.

17. Outdoor antenna grounding – If an outside antenna is connected to the appliance, be sure the antenna system is grounded so as to provide some protection against voltage surges and built up static charges. Article 810 of the National Electrical Code (ANSI/NFPA 70), provides information with respect to proper grounding of the mast and supporting structure, grounding of the lead-in wire to an antenna discharge unit, size of grounding conductors, location of antenna discharge unit, connection to grounding electrodes, and requirements for the grounding electrode. See Figure.



18. Power lines – An outside antenna system should not be located in the vicinity of overhead power lines or other electric light or power circuits, or where it can fall into such power lines or circuits. When installing an outside antenna system, extreme care should be taken to keep from touching such power lines or circuits as contact with them might be fatal.

19. AC outlets – Do not connect other audio equipment with a power consumption larger than that specified to the AC outlet on the rear panel. Never connect other electrical appliances, such as an iron or toaster, to it to prevent fire or electric shock.



20. Overloading – Do not overload wall outlets, extension cords, or integral convenience receptacles as this can result in a risk of fire or electric shock.

21. Attachment – Do not use attachments not recommended by the appliance manufacturer as they may cause hazards.

22. Replacement parts – When replacement parts are required, be sure the service technician has used replacement parts specified by the manufacturer or have the same characteristics as the original parts. Unauthorized substitutions may result in fire, electric shock, or other hazards.

23. Safety check – Upon completion of any service or repairs to this appliance, ask the service technician to perform safety checks to determine that the appliance is in proper operating condition.

Notes:

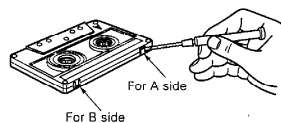
1. Item 3 is not required except for grounded or polarized equipment.
2. Item 17 and 18 are not required except for units provided with antenna terminals.
3. Item 17 complies with UL in the U.S.A.

Before operation

Notes on cassette tape

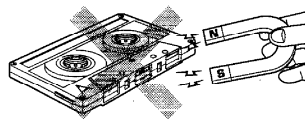
Safety tab (accidental erasure prevention tab)

After an important recording has been finished, break the safety tab, to prevent the recorded contents from being erased or recorded on accidentally.



To store cassette tapes

Do not store the tapes in a place which is subject to direct sunlight, or near equipment that generates heat. Keep the cassette tapes away from any magnetic field.

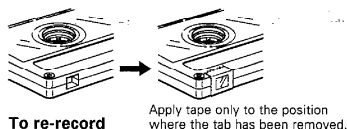


When there is slack in the tape

In such a case, insert a pencil into the reel hole and wind the reel hub to remove the slack.



To re-record



Note:

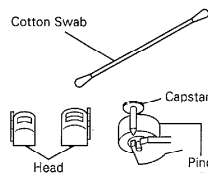
1. 120-minute cassette tape

Since a 120-minute cassette tape is very thin, the tape could adhere to the pinch roller or be easily cut. It is recommended that these tapes not be used with this unit to prevent possible damage.

2. Endless tapes

Do not use an endless tape, as this could damage the mechanism of the unit.

Cleaning the head section



Cleaning the heads and peripheral components

For maintaining the best condition of the deck and for longer service life, always keep the head (recording / playback / erase), capstan and pinch roller clean. To clean them, perform the following:

1. Press the STOP/EJECT key to open the cassette holder.
2. Using a cotton swab dipped in alcohol, clean the head (recording / playback / erase), capstan and pinch roller carefully.

Demagnetizing the head

When the recording / playback head is magnetized, the sound quality will be deteriorated. In such a case, demagnetize the head using a commercially available demagnetizer (head eraser).

Note:

There are precisely aligned parts around the heads, including the tape guides. When cleaning, pay special attention so as not to apply shock to them.

Beware of condensation

When water vapor comes into contact with the surface of cold material, water drops are produced.

If condensation occurs, correct operation may not be possible, or the unit may not function correctly.

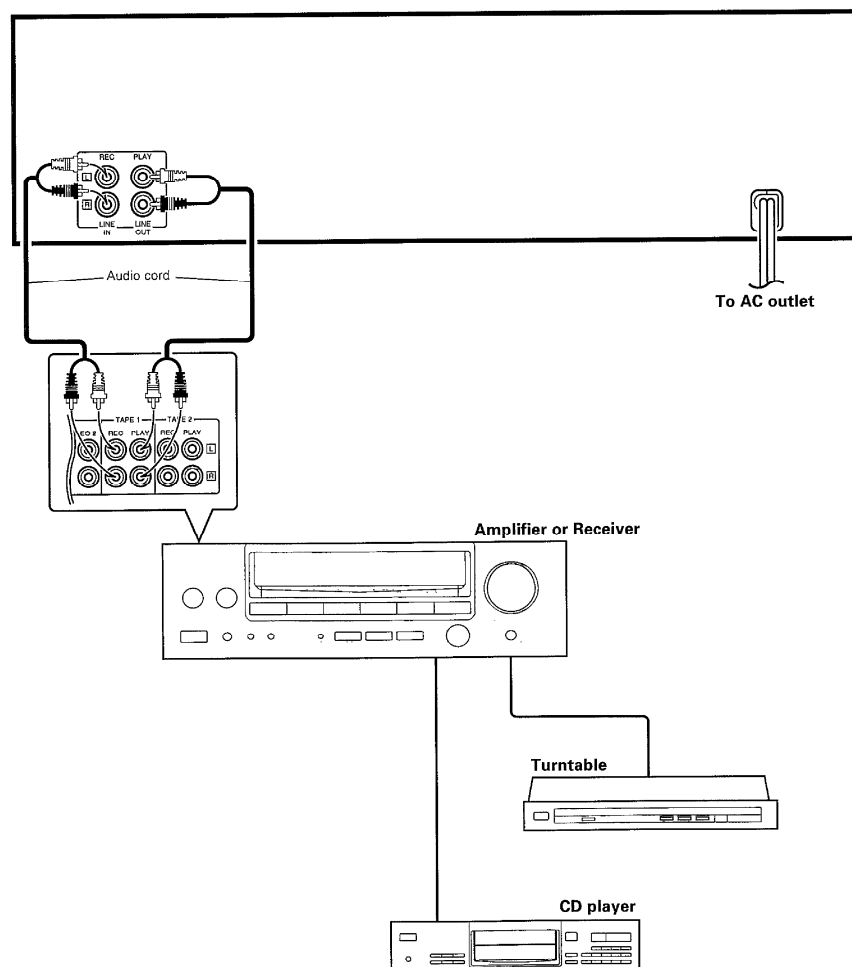
This is not a malfunction, however, and the unit should be dried. (To do this, turn the POWER switch ON and leave the unit as it is for several hours.)

Be especially careful in the following conditions:

- When the unit is brought from a cold place to a warm place, and there is a large temperature difference.
- When a heater starts operating.
- When the unit is brought from an air-conditioned place to a place of high temperature with high humidity.
- When there is a large difference between the internal temperature of the unit and the ambient temperature, or in conditions where condensation occurs easily.

System connection

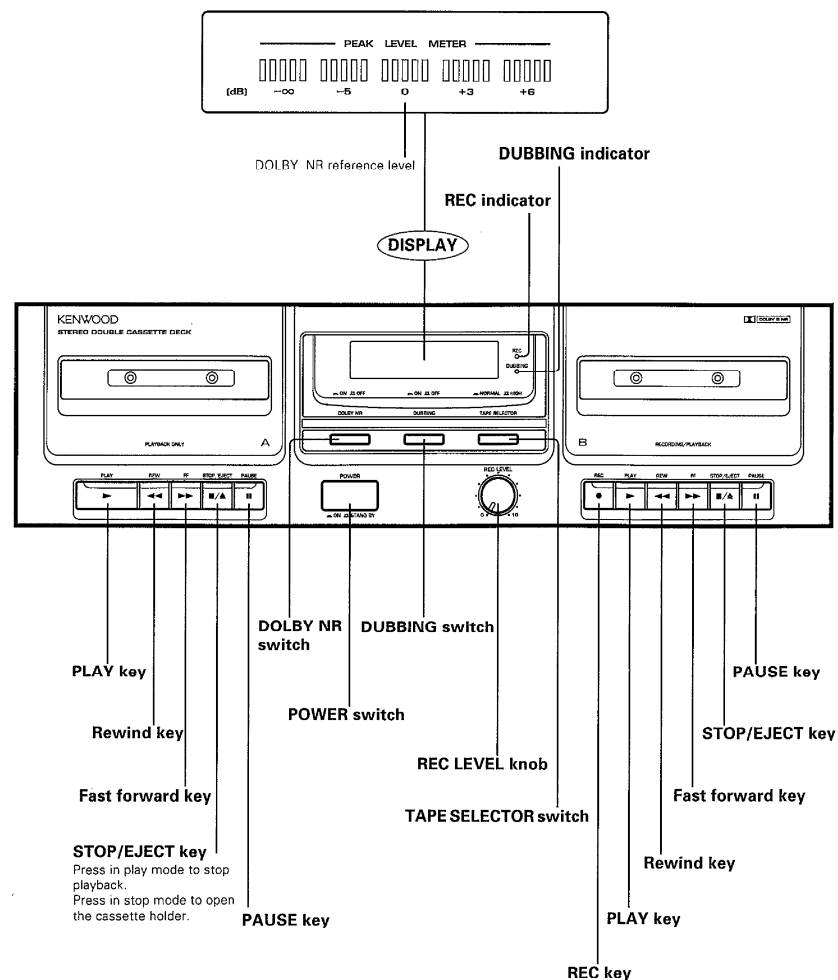
Make connection as shown below. When connecting the related system components, refer also to the instruction manuals of the related components.
Do not plug in the power lead until all connections are completed.



Notes:

1. Connect all cords firmly. If connections are loose, there could be loss of sound or noise produced.
2. When plugging and unplugging connection cords, be sure to first remove the power cord from the AC outlet. Plugging/unplugging connection cords without removal of the power cord can cause malfunctions or damage to the unit.

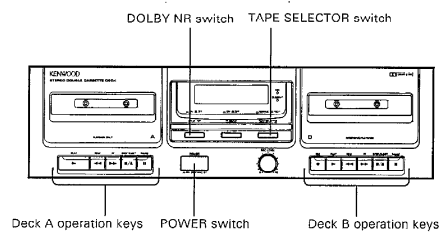
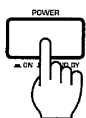
Controls and indicators



Listening to cassette tapes

Before starting playback

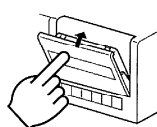
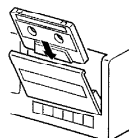
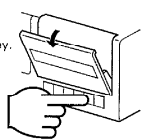
Set the POWER switch to ON.



To playback a tape

1 Insert a cassette tape.

Press the STOP/EJECT Key.

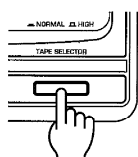


Insert with the side to be played facing toward the front.

- Be sure to remove tape slack before insertion.

2 Determine the playback conditions.

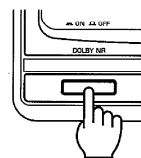
① Tape type selection (Deck B only)



Normal tape •NORMAL
Chrome tape •HIGH

- With playback on deck A, the type of tape is set automatically.

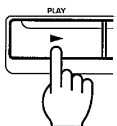
② Select the Dolby NR mode.



- Set to OFF when playing a tape recorded without using Dolby NR.

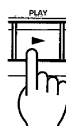
3 Start playback.

Deck A



or

Deck B

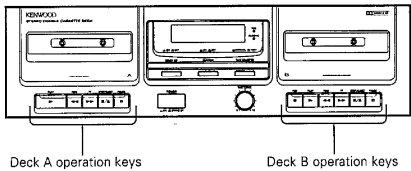


- Playback stops automatically at the end of tape.

To stop playback



- When taking out the tape, press the STOP/EJECT key after the tape transport has stopped completely.

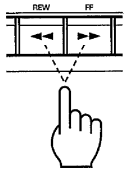


■ Fast Forward and Rewind

1 Stop playback.



2 Press the ◀◀ key or ▶▶ key.



◀◀: Rewind in the ← direction ▶▶: Fast forward in the → direction

To stop the Fast Forward or Rewind operation



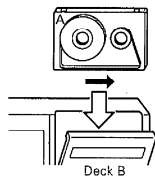
How to record (deck B only)

■ Ordinary recording

Since this unit is not designed for use with metal tapes, recording on metal tapes cannot be carried out.

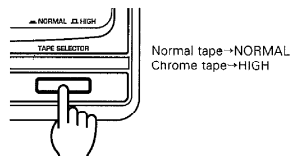
1 Set up the cassette deck.

- ① Insert a tape in deck B.

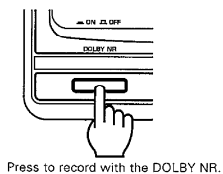


- Check that the DUBBING switch is OFF.

- ② Press the TAPE SELECTOR switch according to the type of tape to be used.



- ③ Select the Dolby NR mode.

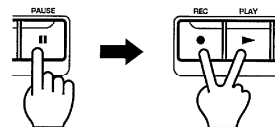


2 Select the source to be recorded.

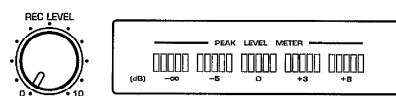
3 Set the recording level.

- ① Play a music source.

- ② Enter the record-pause mode.



- ③ Adjust the recording level.



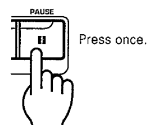
- Adjust so that segments around the 0 dB segment of the peak level meter light up at times.

- ④ Stop playing the source.

4 Start recording.

- ① Play the music source from the beginning.

- ② Press the PAUSE key.



- Recording will start.
- The deck enters the stop mode automatically when the tape has been recorded till the end.

To pause recording Press the PAUSE key.

To resume recording Press the PAUSE key again.

To stop recording Press the STOP/EJECT key then stop playing the music source.

Dolby noise reduction system

The Dolby noise reduction system was developed to reduce the tape hiss noise generated during playback.

The optimum effect of the Dolby NR system is obtained when the same type NR system is used for both recording and playback. If a different type NR system is used, playback is not performed correctly. Make sure that the same type noise reduction system is used for both recording and playback.

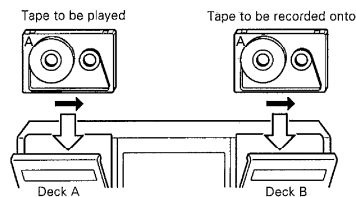
Dolby B NR

The most popular noise reduction system used in home audio components. Usually, Dolby NR system corresponds to B NR.

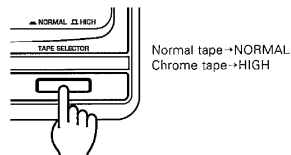
Tape dubbing operation

The dubbing refers to the copy of the recorded contents of a tape to another tape (tape in Deck A → tape in Deck B).

1 Insert tapes in the cassette decks.

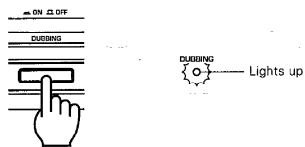


2 Select the type of tape in deck B.

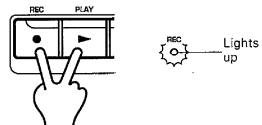


3 Start dubbing.

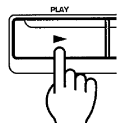
① Press the DUBBING switch.



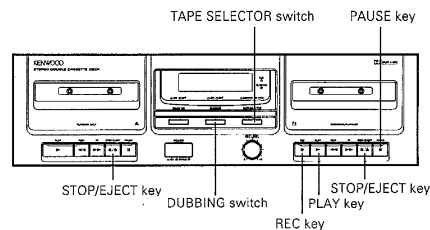
② Press the REC and PLAY keys of deck B simultaneously.



③ Press the PLAY key of deck A.

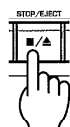


- Dubbing will start.
- The dubbing stops automatically when one side has been dubbed.
- After dubbing, be sure to press the DUBBING switch to OFF.



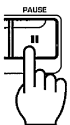
To stop dubbing

Press the STOP/EJECT keys of both decks A and B.



To pause dubbing

Press the PAUSE key of deck B.



- To resume dubbing, press the PAUSE key again.

Notes:

1. The recording level cannot be adjusted for dubbing.
 2. The DOLBY NR switch does not function during dubbing.
- * The tape recorded by dubbing features the same NR system as the original tape in Deck A.

In case of difficulty

What appears to be a malfunction may not always be serious. If your unit should not perform as expected, consult the table below to see if the problem can be corrected before seeking help from your dealer or service representative.

Symptom	Cause	Remedy
Sounds is not produced when the Play key is pressed.	<ul style="list-style-type: none"> The connection cords are connected improperly. The head is dirty. Tape is irregularly wound and hard to take up. A non-recorded tape is being played. 	<ul style="list-style-type: none"> Connect the cords properly referring to "System connections". Clean the head referring to "Cleaning the head section". Replace the tape. Play a recorded tape.
The deck does not work when an operation key is pressed.	<ul style="list-style-type: none"> The cassette holder is not closed completely. The operation key was pressed immediately after closing the cassette holder. The operation key was pressed within less than 4 seconds after the power was turned on. Tape is not inserted. Tape is irregularly wound and hard to take up. Tape has been rewound to a reel. 	<ul style="list-style-type: none"> Close the cassette holder completely. Press the desired operation key in a few seconds after closing the cassette holder. Press the desired operation key in more than 4 seconds after turning the power on. Insert a tape. Replace the tape. Re-insert the tape to play the other side.
The dubbing on Deck A and Deck B ends at different timing.	<ul style="list-style-type: none"> This is due to the difference in tape length or to the characteristics of the cassette deck mechanisms. 	<ul style="list-style-type: none"> A small time difference is not regarded as a failure.
The cassette holder does not open when the STOP/EJECT key is pressed.	<ul style="list-style-type: none"> The key is pressed during recording. 	<ul style="list-style-type: none"> Press in the Stop mode.
Sound is hoarse, or high frequencies are not audible.	<ul style="list-style-type: none"> The head is dirty. The tape is stretched or wrinkled. 	<ul style="list-style-type: none"> Clean the head referring to "Cleaning the head section". Replace the tape.
Sound is distorted.	<ul style="list-style-type: none"> The recording level was too high. A tape recorded with distorted sound is being played. 	<ul style="list-style-type: none"> Adjust the recording level referring to "How to record". Replace the tape.
Recording is not initiated when the REC key is pressed.	<ul style="list-style-type: none"> The protection tab on the cassette has been broken. The cassette holder is not closed completely. The recording level is set to the minimum position. The TAPE input selector is selected on the amplifier. Tape has been fully wound to a reel. 	<ul style="list-style-type: none"> Use a cassette with unbroken tab or close the hole. Close the cassette holder completely. Adjust the recording level referring to "How to record". Press the input selector key of the source to be recorded. Change the tape transport direction of Deck or insert the tape inversely.
Noise level is high.	<ul style="list-style-type: none"> The head is magnetized. External noise is induced. The recording level was too low. A tape recorded with Dolby NR ON is being played with Dolby NR OFF. 	<ul style="list-style-type: none"> Demagnetize the head referring to "Cleaning the head section". Install the system apart from other electrical appliances and TV set. Adjust the recording level referring to "How to record". Press the DOLBY NR switch to ON.
Sound is vibrating.	<ul style="list-style-type: none"> The capstans or pinch rollers are dirty. Tape is irregularly wound. 	<ul style="list-style-type: none"> Clean the head referring to "Cleaning the head section". Wind the tape regularly by fast forwarding, rewinding or playing it fully from one reel to another.

Notes:

1. With some tapes, a squeaky noise is produced when the tape is stopped automatically. This is due to the tape protection function, and not a malfunction.
2. Do not use 120-minute tapes, for the tape is too thin and gets easily tangled.
3. Do not use contact cleaners because it could cause a malfunction. Be specially careful against contact cleaners containing oil, for they may deform the plastic components.

**For the U.S.A.
FCC WARNING**

This equipment may generate or use radio frequency energy. Changes or modifications to this equipment may cause harmful interference unless the modifications are expressly approved in the instruction manual. The user could lose the authority to operate this equipment if an unauthorized change or modification is made.

NOTE:

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment may cause harmful interference to radio communications, if it is not installed and used in accordance with the instructions. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio / TV technician for help.

**For CANADA
DOC REGULATION**

"This digital apparatus does not exceed the CLASS B limits for radio noise emissions from digital apparatus as set out in the radio interference regulations of the Canadian Department of Communications."

Specifications

Track System	4 track, 2 channel stereo	Input sensitivity / Impedance	
Recording System	AC bias (Frequency: 105 kHz)	LINE IN	122.8 mV / 47 kΩ
Heads	A DECK	Output Level / Impedance	
	Playback heads	LINE OUT	775 mV / 3.3 kΩ
	B DECK		
	Playback / recording heads	[General]	
	Erasing head	Power Consumption	12 W
Motors	A DECK	Dimensions	W: 440 mm (17-5/16")
	B DECK		H: 129 mm (5-1/16")
			D: 250 mm (9-13/16")
Wow and Flutter	0.3 % (W.RMS)	Weight (Net)	4.0 kg (8.8 lb)
Fast Winding Time	Approx. 110 seconds (C-60 tape)		
Frequency Response			
Normal Tape	30 Hz to 13,000 Hz, ± 3 dB		
CrO ₂ Tape	30 Hz to 13,000 Hz, ± 3 dB		
Signal to Noise Ratio			
Dolby NR OFF	57 dB		
Dolby B NR ON	66 dB		
	(3rd, H.D., 3 %, Chrome tape)		
Harmonic Distortion	Less than 1.0 %		
	(at 315 Hz, 3rd H.D., 250 nWb / m, Chrome tape)		

Note:
KENWOOD follows a policy of continuous advancements in development. For this reason specification may be changed without notice.

KENWOOD